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A New Species of Genus *Eumeces* from New Mexico

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ABSTRACT: A new species, *Eumeces gaigei*, belonging to the *E. multivirgatus* group is described from Taos, New Mexico.

THE following species was discovered in June, 1929, in the mountains near Taos, New Mexico, at which time two specimens were taken. These were entered in the Kansas University Museum catalogue as *E. humilis*? In 1932 one of these specimens had the skull removed and studied by R. H. Kingman (*loc. cit.*).

When specimens of the true *E. humilis* were later discovered in New Mexico it became apparent that the Taos form had been wrongly associated with that species. The relationship is, however, with that species, but this should not, I believe, be regarded as a subspecific relationship.

Eumeces gaigei sp. nov.

Eumeces multivirgatus Mosauer, (part) Occ. Papers Mus. Zoöl. Univ. Michigan, No. 246, June 9, 1932, pp. 12-14, pl. I (No. 70517).

Eumeces humilis? Kingman, Univ. Kansas Sci. Bull., vol. XX, No. 15, May 15, 1932, issued Oct. 1, 1932 (Bull. Univ. Kansas, vol. XXXIII, No. 10, 1932, pp. 273-293, pl. XXXIII, figs. 1 and 2 [skull]).

Type. Kansas University No. 7300; collected near Taos, New Mexico, June 13, 1929, by E. H. Taylor; paratype No. 7301 (skull removed).

Diagnosis. A medium-sized species, characterized by the absence of a distinct lateral line and forking lines on the head; the presence of typical dorsolateral lines following the middle of the third scale row, and separated by four whole and two, one-third scale rows.

Brown lateral stripe very narrow; limbs short, not meeting when adpressed; subcaudals widened; postnasal present or absent; two postmentals; interparietal not enclosed; seven upper labials; 24 scale rows about the body.

Description of Type. Portion of rostral visible above less than half the size of the frontonasal; internasals large, forming a median suture; frontonasal large, touching anterior loreals, separated from frontal; prefrontals rather large, medially in contact, forming sutures with frontonasal; frontal, posterior loreal, first supraocular, anterior loreal, superciliary, their lengths in the order named; frontal large, a little longer than its distance from the tip of the snout, slightly

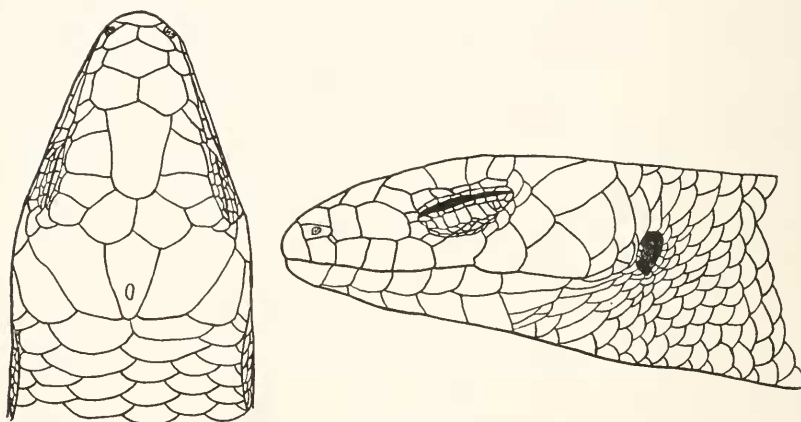


FIG. 1. *Eumeces gaigei* sp. nov. University of Michigan Museum of Zoölogy No. 70517 Guadalupe Mts., Texas, near Texas-New Mexican border. Actual head width, 8 mm.; length, 9 mm.

constricted laterally, in contact with three supraoculars; frontoparietals in contact; interparietal with sides converging posteriorly, not curving; parietals short and broad, not in contact behind interparietal; two pairs of nuchals, of about the same size.

Nasal typical, divided by a suture, the anterior part largest; postnasal present; anterior loreal distinctly higher than wide, higher than the posterior; latter longer than high, touching two or three labials; presuboculars two (one on right side); six (right) or seven (left) superciliaries; four supraoculars; four postsuboculars; median upper palpebrals directly in contact with superciliaries; two rather large plates on lower eyelid, separated from subocular by two rows of granules; primary temporal large, practically of same size as the lower secondary temporal, with which it forms a suture; upper

secondary temporal slightly wider posteriorly than anteriorly; tertiary temporal high, slender, separated from ear by two scales.

Seven upper labials, the first usually the smallest, the seventh (last) largest; the subocular labial larger than usual, approaching or equalling size of sixth labial; seventh labial separated from ear by two pairs (superimposed) of scales; one minute ear lobule; mental large, with a larger labial border than rostral; two postmentals; three pairs of chinshields, the first in contact; postgenial large (broken abnormally into two scales), bordered on inner side by a scale longer than wide; six or seven lower labials.

Scales in parallel rows, about equal in size around the body; scales around neck behind ear, 32; about narrow part of neck, 26; in axillary region, 32; about middle of body, 24; 16 about base of tail at first widened subcaudal; subcaudals nearly double width of adjoining scale row; six preanals, the median pair much enlarged, the outer scales overlapping inner.

Limbs short; the area of granular axillary scales greatly reduced, only one or two rows; none behind insertion of hind limbs; wrist tubercle not strongly differentiated; the scales on wrist and posterior part of palm equal in size, all rather large; lamellar formula for fingers: 5; 8; 10; 11; 6. Heel with two large plates in contact, these each preceded by a single larger scale; scales on sole subequal and for the most part imbricating; lamellar formula for toes: 5; 9; 11; 12; 8. Terminal scales not tightly bound about claw. Ear small, surrounded by about 16 scales; scales on side of neck with usually two pits, these obsolete on sides of body; pits occasionally three in axillary and postfemoral region.

Color. (The type is somewhat discolored by formalin.) Above brownish, the scales showing an anterior and a posterior darker area; no evidence of a median line or bifurcating lines on head; a dorsolateral line begins on the anterior supraocular and continues back onto the tail following the middle of the third scale row, as a series of light dots. The lateral line begins on the rostral, but cannot now be traced quite to ear; chin, anterior part of throat and anal scales light; underside of regenerated tail light.

Remarks. The two specimens in the Kansas University Museum were collected in barren hills along a stream about a mile from the large Indian village near Taos through which the stream flows. They were found under small, flat rocks on a steep hillside, and appeared to be making burrows, as the earth was freshly disturbed;

they took refuge in the burrows, which extended three inches below the surface.

I made journeys to Taos in 1930 and 1934, hoping to discover more specimens, but without result.

The Michigan specimen, which I have been permitted to examine through the kindness of Mrs. Gaige, was collected in the Guadalupe Mountains by Dr. Walter Mosauer. I at first believed it to be an aberrant discolored *E. multivirgatus*.

Measurements of *Eumeces gaigei* sp. nov.

Museum.....	KU	KU	MU
Number.....	7300	7301	70517
Sex.....	♀	♀	♀
Snout to vent.....	66	62.7	59
Snout to eye.....	5	5	4
Snout to ear.....	11.8	11	10
Snout to foreleg.....	22	18	16
Axilla to groin.....	40	39.4	35.5
Width of head.....	8.7	8.2	7.8
Length of head.....	10	10	9.2
Width of body.....	12	11.9	10
Foreleg.....	14	13.8	13
Hind leg.....	19	18.7	18
Longest toe.....	12	12	11

A fourth specimen, badly dried, but still showing well the original coloration, is in the American Museum of Natural History. Through the kindness of Dr. G. K. Noble I was permitted to examine it. The color characters are practically identical with those of the Michigan specimen, and differ from young *E. multivirgatus* from the same locality.

Variation. The specimen in the University of Michigan shows the color markings very distinctly. These are as follows:

Above olive-brown, the outer edges of the scales of the first and second rows with darker brown coloration which forms a dim line following edges of first and second row, and second and third; the dorsolateral white line begins on supraocular or anterior edge of parietal, passes back along the middle of the third scale row, the upper and outer edges of which are dark brown; the light line

appears as a series of dots, since the posterior edge of each scale is also somewhat darker; a broad, dark-brown line begins behind eye, passes above shoulder and becomes reduced to a narrow lateral line which passes above edges of the fourth and fifth scale rows; this is bordered above and below by dotted lines of ground color, slightly lighter than that on back; a light labial line from second labial passes above ear and stops; a lateral line begins at middle of ear and passes back to above arm and becomes lost; chin and throat light, belly bluish-gray; undersides of legs and anal region light; anterior part of head dark brown, no bifurcating lines visible.

The young specimen in the American Museum, also from the Guadalupe Mountains, has the brown ground color with the dotted dorsolateral lines cream yellow; along the median part of the body are a few lighter flecks on the scales, but in no sense a median line. This specimen differs much from a young *E. multivirgatus* taken in the same locality.

The scale variation in this species is negligible save that in the Michigan specimen a typical postnasal is absent. On one side, however, is a small scale partially fused to (or separated from) the upper posterior part of the first labial.

Relationship. Despite the scale relationship of this form with *E. multivirgatus*, I do not regard it as a subspecies, since the two forms occur together from northern New Mexico (Taos) to Texas (Guadalupe Mountains). Much herpetological collecting remains to be done in New Mexico and Arizona before a clear picture of this form and its relationships can be known.

Whether the specimen in the United States National Museum (No. 5263), from the northern boundary of Texas, one of the types of *epipleurotis*, belongs to this form cannot now be stated, since the specimen is in such a condition that it cannot be identified with any degree of certainty. I propose to designate USNM No. 9219, Fort Kearney, Nebraska, as the *lectotype* of *epipleurotus*, since it appears that the description was drawn from this specimen. It is undoubtedly a specimen of *E. multivirgatus* and is still in a good state of preservation.

Distribution. The species is known only from the states of New Mexico and Texas, and from the following localities: New Mexico, Taos Co.: Near Taos (KU, 2; types); Eddy Co.: Guadalupe Mountains (AMNH, 1). Texas, Culberson Co.?: Near Frijoles (MU, 1).